

Application No. 10/757,399
Amendment dated November 21, 2005
After Final Office Action of September 20, 2005

Docket No.: 0941-0899P

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) An ignition coil comprising:

a casing; and

a bobbin, including a body and a plurality of first terminals embedded in the body, disposed inside the casing, wherein the body and the casing simultaneously abut each of the first terminals so that each of the first terminals is maintained in a predetermined position on the body;

a plurality of pins, corresponding to the first terminals respectively, embedded inside the casing.

2. (Original) The ignition coil as claimed in claim 1, wherein the bobbin is formed with a plurality of concave portions for receiving the first terminals therein.

3. (Original) The ignition coil as claimed in claim 2, wherein the bobbin is formed with a plurality of protrusions for holding the first terminals therein, and each concave portion is formed at one of the protrusions respectively.

4. (Canceled)

5. (Original) The ignition coil as claimed in claim 4, wherein each of the first terminals includes a ring-shaped portion in contact with the corresponding pin.

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6. (Original) The ignition coil as claimed in claim 5, wherein each ring-shaped portion is abutted by the body and the casing respectively.

7. (Original) The ignition coil as claimed in claim 5, wherein each of the pins is surrounded by the corresponding ring-shaped portion to contact the corresponding first terminal.

8. (Original) The ignition coil as claimed in claim 5, wherein each of the first terminals further includes a protruding portion integrally formed with the ring-shaped portion.

9. (Original) The ignition coil as claimed in claim 5, wherein the casing is provided with a base in which the pins are disposed, and each ring-shaped portion is abutted by the base.

10. (Original) The ignition coil as claimed in claim 9, wherein the base is formed with a plurality of supporting portions to be abutted by the ring-shaped portions.

11. (Original) The ignition coil as claimed in claim 1, wherein the bobbin further includes a primary portion and a secondary portion.

12. (Original) The ignition coil as claimed in claim 11, further comprising:
a primary coil surrounding the primary portion; and
a secondary coil, surrounding the secondary portion, connected to the first terminals.

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13. (Original) The ignition coil as claimed in claim 12, wherein the bobbin further comprises:

two second terminals, connected to the primary coil, embedded in the body.

14. (Original) The ignition coil as claimed in claim 1, further comprising:

a core disposed inside the bobbin.

15. (Original) The ignition coil as claimed in claim 1, wherein the casing is made of plastic.

16. (Previously Presented) The ignition coil as claimed in claim 4, wherein each of the pins is made of metal.

17. (Currently Amended) An ignition coil comprising:

a casing;
a bobbin including a body, a plurality of first terminals embedded in the body, and two second terminals embedded in the body, wherein the bobbin is disposed inside the casing, and the body and the casing simultaneously abut each of the first terminals so that each of the first terminals is maintained in a predetermined position on the body;

a primary coil, surrounding the body of the bobbin, connected to the second terminals;

a secondary coil, surrounding the body of the bobbin, connected to the first terminals; and
a core disposed inside the bobbin;

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a plurality of pins, corresponding to the first terminals respectively, embedded inside the casing.

18. (Original) The ignition coil as claimed in claim 17, wherein the bobbin is formed with a plurality of concave portions for receiving the first terminals therein.

19. (Original) The ignition coil as claimed in claim 18, wherein the bobbin is formed with a plurality of protrusions for holding the first terminals therein, and each of the concave portions is formed at one of the protrusions respectively.

20. (Canceled)

21. (Original) The ignition coil as claimed in claim 20, wherein each of the first terminals includes a ring-shaped portion contacting each corresponding pin.

22. (Original) The ignition coil as claimed in claim 21, wherein each ring-shaped portion is abutted by the body and the casing respectively.

23. (Original) The ignition coil as claimed in claim 21, wherein each pin is surrounded by the corresponding ring-shaped portion to contact each corresponding first terminal.

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24. (Original) The ignition coil as claimed in claim 21, wherein each first terminal further includes a protruding portion integrally formed with the ring-shaped portion.

25. (Original) The ignition coil as claimed in claim 21, wherein the casing is provided with a base in which the pins are disposed, and each ring-shaped portion is abutted by the base.

26. (Original) The ignition coil as claimed in claim 25, wherein the base is formed with a plurality of supporting portions to be abutted by the ring-shaped portions.

27. (Original) The ignition coil as claimed in claim 17, wherein the bobbin further comprises:

a primary portion surrounded by the primary coil; and
a secondary portion surrounded by the secondary coil.

28. (Original) The ignition coil as claimed in claim 17, wherein the casing is made of plastic.

29. (Previously Presented) The ignition coil as claimed in claim 20, wherein each of the pins is made of metal.

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30. (Original) The ignition coil as claimed in claim 17, wherein the bobbin further comprises:

two second terminals, connected to the primary coil, embedded in the body.